



**Natural Resources Conservation Service**

# **Colorado Training Catalog**

**Ecological Sciences, Engineering  
and Resource Planning**

**Revised  
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## **Introduction**

The following is a process and list of training sessions with descriptions of each provided by the staff of the Natural Resources Conservation Service (NRCS) in Colorado. Addressed are a number of disciplines and training to the field office employees and others. Those providing the courses are State Biologist, State Conservation Agronomist, State Range Conservationist, Cultural Resources Specialists/Archeologists, Social Sciences Coordinator, Plant Materials Specialist, Irrigation Water Management (IWM) Specialist, Resource Conservationist, State Conservation Engineer, Hydraulic Engineer, Agricultural Engineer, and Civil Engineer. Those listed have provided this type of training for a number of years and each adds a different perspective for training sessions. Continuing Education Units (CEU) are available for classes as noted.

## **Process**

Colorado NRCS schedules training sessions listed in this catalog based on requests for employees provided to Area Conservationists, Assistant State Conservationists, the State Conservation Engineer and the State Training Officer.

If leadership determines there is a need for a particular session, the discipline leader contacts Area and District Conservationists to request a list of potential candidates and to provide information regarding prerequisites, course completion requirements and possible dates and locations.

Based on the response from Area and District Conservationists, a meeting request is prepared and submitted to the State Conservationist for approval.

If the State Conservationist determines there is sufficient need and budget to support the session, the discipline leader then contacts individual attendees to provide specific information regarding dates, locations and local arrangements.

Attendees are responsible for completing their SF-182, Request, Authorization, Agreement & Certification of Training, through AgLearn.

## **Products**

Each training session listed in this catalog is a product. Each product includes a title, objectives, course overview, prerequisites, continuing education credits and contact information.

## **BASIC HYDRAULICS**

**Trainer:** Colorado NRCS engineers and technicians serving as instructors

**Objective:**

After completion of the class, participants will:

Be able to check hydraulic design computations made by others; and

Be able to perform basic design computations for simple irrigation ditches, irrigation and livestock water pipelines, and water measurement devices.

**Overview:**

A review of open channel and closed pipe hydraulics as described in Engineering Field Handbook Chapter 3, with special emphasis on irrigation ditches, irrigation and livestock water pipelines, and water measurement devices. This is a five-day class using formal classroom training and field exercises. Agenda, presentation material and example problems are available on CD.

*Prerequisites:* None

**CCA CEUs:** To be determined

**CCP CEUs:** To be determined

**PDHs:** 30

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## **BASIC STRUCTURE PLANNING**

**Trainer:** Colorado NRCS engineers and technicians serving as instructors

**Objective:**

After completion of the class, participants will:

Understand the features and benefits of the most commonly used NRCS engineering practices in Colorado; and

Be able to identify and incorporate into a conservation plan the most appropriate practices for accomplishing the intended conservation objectives and management functions

**Overview:**

A review of the features and benefits of the most commonly used NRCS engineering practices in Colorado, with special emphasis on practice standard criteria, design methods and documentation requirements. The specific practices covered will be determined based on input from the class participants. This is a five-day class using formal classroom training including field exercises.

**Prerequisites:** None

**CCA CEUs:** To be determined

**CCP CEUs:** To be determined

**PDHs:** 30

**Contact:**

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# COMPREHENSIVE NUTRIENT MANAGEMENT PLAN (CNMP) SPECIALIST, CERTIFICATION WORKSHOP

**Trainers:** John Andrews, Eugene Backhaus, Karma Anderson, Ron Schierer, Jim Sharkoff

**Objective:**

Instruct participants to develop, review and approve CNMPs.

**Overview:**

This is a classroom/field training session for Certified Conservation Planners. Participants receive group instruction regarding NPPH CNMP Element Criteria, and conducting Animal Feeding Operation site evaluations. This session takes about 16 hours to complete.

**Prerequisites:**

Certified Conservation Planner, KSA Level 4

National Employee Development Center, Introduction to Water Quality

National Employee Development Center, Nutrient and Pest Management Considerations in Conservation Planning, Nutrient Track I, Parts 1, 2 and 3

National Employee Development Center, Ag Waste Systems, A Primer

National Employee Development Center, Ag Waste Systems, Level 2

**CCA CEUs:** To be determined

**CCP CEUs:** 12

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# CONSERVATION PLANNING TRAINING

**Trainer:** Eugene Backhaus

**Objective:**

The objective of the course is to prepare the participant to apply the NRCS planning process and utilize supporting technology to assist clients to make decisions resulting in conservation plans.

**Overview:**

This course is designed to provide conservation planning training for working with individual clients or with groups that basically function as an individual. The course emphasizes the conservation planning process; developing quality, complete plans on the entire unit; consideration of ecological, economic, and social concerns; on-site assistance; the effects and impacts of planned actions onsite and offsite; and partnership involvement. The course is based on current conservation planning policy, the procedures and guidelines in the National Planning Procedures Handbook (NPPH) and the supporting technology and tools to carry out the planning process and the locally led process. The course runs from noon on Monday to noon on Friday.

The course is divided into three parts:

Part 1 (modules 1-5) provides background and framework for conservation planning.

Part 2 (modules 6-8) is the hands-on field application of the planning process. It includes classroom and field exercises.

Part 3 (module 9) is the individual application of the conservation planning process utilizing the information learned in Parts 1 and 2. Part 3 is to be completed at the participants work location with the assistance of a coach and the participants' supervisor.

***Prerequisites:***

1. Conservation Planning Modules 1-5
2. Introduction to Water Quality
3. Ag Waste; A Primer
4. Nutrient and Pest Management Considerations in Conservation Planning, Nutrient Management Track 1 (Modules 1-6)
5. Nutrient and Pest Management Considerations in Conservation Planning, Pest Management Track 1 (Modules 1-6)

**CCA CEUs:** To be determined

**CCP CEUs:** 18

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## **EXCEL WIND EROSION EQUATION, COLORADO FIELD VERSION**

**Trainers:** Jim Sharkoff, Ron Schierer, Lorenz Sutherland, Richard Sparks

**Objective:**

Instruct participants in the appropriate use of the Excel Wind Erosion Equation, Colorado Field Version, for conservation planning.

**Overview:**

This is a “Hands On” training session for conservation planners. Participants receive group instruction regarding wind erosion science and use of the Excel Spreadsheet, and then work problem sets individually with assistance from the instructor(s). This session takes about 8 hours to complete.

**CCA CEUs:** To be determined

**CCP CEUs:** 8

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# **FUNDAMENTALS OF SURVEYING I**

**Trainer:** Colorado NRCS engineers and technicians

**Objective:**

After completion of the class, participants will:

Be aware of different types of engineering surveys; and

Be able to perform a basic profile and cross section survey for use in planning and design of conservation practices.

**Overview:**

This three-day class covers: (1) A review of surveying fundamentals as described in Engineering Field Handbook Chapter 1 and Technical Release No. 62, with special emphasis on performing profile, cross section and construction layout surveys for common engineering practices in Colorado; and (2) A review of the standard practice for preparing engineering drawings as described in Engineering Field Handbook Chapter 5 and National Engineering Manual Part 541

This is a three-day class with formal classroom training and field exercises. Agenda, presentation material, and example problems are available on CD.

***Prerequisites:*** None

**CCA CEUs:** To be determined

**CCP CEUs:** To be determined

**PDHs:** 14

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## **FUNDAMENTALS OF SURVEYING II**

**Trainer:** Colorado NRCS engineers and technicians

**Objective:**

After completion of the class, participants will:

Understand the appropriate uses for electronic surveying instrument; and

Be able to perform a basic conservation practice design surveys using a Total Station differential global positioning system (DGPS) surveying equipment.

**Overview:**

This class covers surveying fundamentals with special emphasis on surveying and electronic data collection using total station and differential global positioning system surveying equipment

This is a 3 day long class with formal classroom training and field exercises.

**Prerequisites:** Fundamentals of Surveying I or equivalent experience

**CCA CEUs:** To be determined

**CCP CEUs:** To be determined

**PDHs:** 14

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# **FUNDAMENTALS OF DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS) FOR ENGINEERING SURVEYS**

**Trainer:** Colorado NRCS engineers and technicians with the vendor (Trimble / Vectors, Inc.) providing expert instructors

## **Objective:**

After completion of the class participants will:

Understand how DGPS systems work; and

Be able to perform complex practice design surveys using differential global positioning system (DGPS) surveying equipment.

## **Overview:**

This class covers the fundamentals of how DGPS systems work, operational training on the Trimble DGPS equipment, as well as the limitations and capabilities of the system. The training includes collecting and downloading survey information and processing the data in Trimble Geomatics Office (TGO) software to produce quality surveys and mapping products used in design. *Participation in this class is limited to technicians and engineers who design complex practices and where GPS surveying can be used efficiently.* This is a three-day class with formal classroom training and field exercises. **TUITION REQUIRED.**

**Prerequisites:** FUNDAMENTALS OF SURVEYING II or equivalent experience

**CCA CEUs:** To be determined

**CCP CEUs:** To be determined

**PDHs:** 16

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## **INTRODUCTION TO EXCEL IRRIGATION WATER MANAGEMENT (IWM) PLANNING TOOLS**

**Trainers:** Jason Peel, Brady McElroy, Richard Sparks

**Objective:**

Instruct participants in use of computerized irrigation water management tools.

**Overview:**

This is a classroom training session for planning and engineering staff. Participants receive group instruction regarding computerized tools for irrigation water management planning. This session takes about 3 hours to complete.

**Prerequisites:** None

**CCA CEUs:** To be determined

**CCP CEUs:** 1

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## **INTRODUCTION TO FOREST PLANNING**

**Trainers:** Lyn Townsend

**Objective:**

The objective of the course is to give the participant a working knowledge of forestry measurements, technology, terminology, forest management plans and Forest Stewardship plans. After the course is completed, the participants will be able to develop a NRCS conservation plan with the pertinent forest practices that will address the resource concerns and develop a contract from the conservation plan in ProTracts.

**Overview:**

This course is designed to provide forest management training for NRCS employees so they will be able review a forest plan that was developed by the Colorado State Forest Service (CSFS) or a certified forester and then develop a NRCS conservation plan with the appropriate forest practices to address the client's natural resources needs and goals. The attendees will then be able to develop the conservation plan into a contract in ProTracts for the Environmental Quality Incentive Program (EQIP) or other NRCS programs. The trainees will also develop the skills to checkout and certify the forest practices in the conservation plan and contract.

**Field:**

Field portions of this training occur at the beginning of the session and involve the use of all types of forest measurement techniques that measure tree age, height, diameter, stand density etc. Field measurements will be used the second and third days to develop forest management plans.

The course length is three full days and will be held somewhere along the Front Range, April 22-24, 2008, 8am to 5pm. The training is 60% classroom work and 40% field exercises.

**CCA CEUs:** To be determined

**CCP CEUs:** 12

**Contact:**

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## **INTRODUCTION TO PLANNING ANIMAL FEEDING OPERATIONS**

**Trainers:** Karma Anderson, Gene Backhaus

**Objective:**

To provide a basic overview of animal waste planning, and update participants' knowledge of resource issues related to Animal Feeding Operations (AFOs).

**Overview:**

This is a 1-2 day training session for conservation planners, Technical Service Providers, and producers. Classroom instruction includes discussion of emerging resource issues, regulatory updates, animal waste management planning tools, and specific AFO/CAFO planning problems. Field instruction involves hands-on planning scenarios, with assistance from SO staff, to apply the concepts discussed in the classroom. This class is a hands-on, broad view of animal waste issues and complements CNMP planner training.

**Prerequisites:** None

**CCA CEUs:** To be determined

**CCP CEUs:** 4

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## INTRODUCTION TO PLANT MATERIALS

**Trainer:** Manuel Rosales, Steve Parr

**Objective:**

The objective of the course is to give the participant an understanding of the Plant Materials Program and its role in helping provide technical support to NRCS cooperators to maintain and improve the nations' natural resources. Also, the participant will have an awareness of the role of the Plant Materials Program in providing plant recommendations for NRCS Practice Standards and Specifications in the Field Office Technical Guide.

**Overview:**

This course is designed to provide plant materials training for NRCS employees to develop a working knowledge on how plants can be used to solve environmental problems. The class starts out by reviewing with the participant plant identification and plant terminology. Then requires the trainee to key and identify several plants by using dichotomous plant keys and then by using the new interactive plant key. The class emphasizes seed quality, seed conditioning, seed labels, native seed collection procedures, types of plant material releases and the process that a plant center completes to release a new plant cultivar. The trainee learns how to develop a seed mixture for cooperators, how to prepare a good seed bed, calibrate a seed drill and how to evaluate whether a grass stand is well established. Invasive weeds are discussed with the participant both problematically and the legal ramifications of the new weed law. Integrated pest management is covered and speakers discuss types of control methods that can be used to manage invasive weeds. The participant then learns the interaction between the plant materials program and the NRCS field offices, how they can both benefit from one another and how technical assistance is requested from a plant center.

The course is held at the Meeker Environmental Plant Center in Meeker, CO and is taught for three full days, 8am to 5pm. The training is 60% classroom work and 40% field exercises.

**CCA CEUs:** To be determined

**CCP CEUs:** 12

**Contact:**

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## **IRRIGATION SYSTEM PLANNING**

**Trainer:** State and National Technical Service Center specialists and industry experts serving as instructors

**Objective:**

After completion of the class participants will:

Understand the features and benefits of the most common types of irrigation systems used in Colorado; and

Be able to identify and incorporate into a conservation plan the most appropriate irrigation method for a field based on soil and water characteristics as well as the intended conservation and management objectives.

**Overview:**

This class provides an overview of the nine steps of conservation planning as it applies to the selection of water delivery, irrigation, and water management practices to address identified resource concerns, with emphasis on planning and design documentation requirements for the most commonly used irrigation methods in Colorado. This is a five-day class using formal classroom training.

**Prerequisites:** None

**CCA CEUs:** To be determined

**CCP CEUs:** To be determined

**PDHs:** 30

**Contact:**

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# **IRRIGATION WATER MANAGEMENT (IWM) TRAINING**

**Trainer:** Jason Peel

**Objective:**

The objective of the course is to prepare the participant to independently develop and support irrigation water management plans in accordance with NRCS policy.

**Overview:**

This course is designed to provide irrigation water management training to facilitate development of irrigation water management plans and allow trainees to provide basic technical assistance to producers in the field. The course emphasizes development of complete, integrated plans for irrigation systems and water management as applied to individual producer operations. The course is based on current conservation policy, the procedures and guidelines in the National Engineering Handbook, and the Colorado Irrigation Guide.

The course is taught over a 5-day period and consists of 24 hours of classroom instruction, 18 hours of field exercises, and the preparation of an irrigation water management plan following formal instruction.

***Field:***

Field portions of this training occur throughout the session and involve water measurement techniques, soil moisture measurement techniques, salinity measurement techniques and hands on experience with various irrigation systems employed throughout the state.

***Review:***

The review is the development of irrigation water management plans by small groups of trainees. These plans are presented to the instructors on the final day of the course.

***Application:***

An additional irrigation water management plan will be developed by each trainee working with a producer in their local area. This plan will be submitted to the District Conservationist and Area Conservationist for review, with final assessment of each plan by the Irrigation Water Management State Specialist. Successful completion and acceptance of this plan is a requirement for course completion.

**CCA CEUs:** To be determined

**CCP CEUs:** 18

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# MANURE AND WASTEWATER COLLECTION, HANDLING AND STORAGE PRACTICES

**Trainers:** Colorado NRCS engineers and technicians serving as instructors

**Objective:**

After completion of the class participants will:

Understand the features and benefits of manure and wastewater handling and storage components typically used in association with Comprehensive Nutrient Management Plans (CNMP) in Colorado;

Be able to identify and incorporate into a CNMP the most appropriate manure and wastewater handling and storage components; and

Understand the appropriate design methodology, will be able to prepare simple designs, and will be able to check the design information prepared by others for compliance with NRCS requirements.

**Overview:**

This class presents a discussion of the features and benefits of typical manure handling and storage facilities, as described in Chapter 10, NRCS National Engineering Handbook Part 651 - Agricultural Waste Management Field Handbook, with an emphasis on practice standard criteria, design methodologies and documentation requirements. This is a three-day class using formal classroom training and field exercises.

***Prerequisites:***

Basic Hydrology Modules 101-106 (AgLearn self study) and Basic Hydrology or equivalent experience.

**CCA CEUs:** To be determined

**CCP CEUs:** To be determined

**PDHs:** 24

**Contact:**

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## **MICRO IRRIGATION FUNDAMENTALS**

**Trainer:** State and National Technical Service Center specialists and industry experts serving as instructors

**Objective:**

After completion of the class participants will:

Understand the features and benefits of the types of drip irrigation systems commonly used in Colorado;

Be able to identify and incorporate into a conservation plan the most appropriate practices for accomplishing the intended conservation objectives and management functions; and

Understand the appropriate methodology to prepare simple designs in order to check the design information submitted by vendors for compliance with NRCS requirements.

**Overview:**

A review of micro irrigation methods, practice standard criteria, design methodology and documentation requirements with an emphasis on subsurface drip irrigation of agricultural crops. This is a two-day class using formal classroom training.

**Prerequisites:** Basic Hydraulics or equivalent experience

**CCA CEUs:** To be determined

**CCP CEUs:** To be determined

**PDHs:** 8

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# NATIONAL CULTURAL RESOURCES MANAGEMENT (CRM) TRAINING

**Trainers:** Marsha Sims, William Volf

## **Objective:**

This course supplements National Training and provides awareness of cultural resources in review and process for staff of NRCS.

## **Overview:**

The following addresses the Natural Resources Conservation Services (NRCS) training program for Cultural Resources Management (CRM). Training sessions involve participants completing Modules 1-6 of the NRCS National CRM Training Program available through the AgLearn web site as a prerequisite for the Colorado CRM Workshop covering Modules 7 & 8. Certificates from the AgLearn course are collected at the beginning of the Colorado Workshop. Videos, instructor/facilitator lectures and lab, and field and museum visits make up Modules 7 & 8. Partners and contractors are encouraged to participate in the National Employed Development Center (NEDC).

**Prerequisite:** AgLearn:

- go to [www.aglearn.usda.gov](http://www.aglearn.usda.gov) and log in as a student using your USDA eAuthentication identification
- select **Catalog** from the top menu link
- under **Subject area menu** scroll down and select **Natural Resources Conservation Service**
- select the **Cultural Resources Training Series, Part 1**, and click the launch button to access the course. Complete the course.

The training is usually in cooperation with other federal agencies, Colorado Office of Archaeology and Historic Preservation staff when available, local museums, American Indian Tribes, and local landowners.

**CCA CEUs:** To be determined

**CCP CEUs:** 16

## **Modules 1-6:**

Modules 1-6 address the procedures of CRM. These modules were originally developed based on General Manual Part 401 of USDA NRCS and the regulations proposed by the Advisory Council on Historic Preservation addressing historic properties synonymous with cultural resources. The lecture includes a review of Modules 1-6. Training is self-paced and will take approximately one day.

## **Modules 7 and 8:**

Module 7 and 8 are the lab and field instruction. Local Prehistory and History of Colorado provides a context for field personnel. In the handbook for Colorado, the laws, regulations, forms and procedures are provided to each participant. Training is over a three-day period.

## **NATIONAL CULTURAL RESOURCES MANAGEMENT (CRM) TRAINING CONT.**

### ***Lab:***

The lab includes examples of cultural resources and information on Traditional Cultural Places/Sacred Sites, cultures of the area, flint knapping techniques, and burial issues. Cultural resources identification, instruction in NRCS paperwork, and other pertinent types of background researches are included. The Colorado Handbook for Cultural Resources includes a checklist, series of procedures, Colorado State Laws, and Federal Laws with examples.

### ***Field:***

Field portions of the training are within a two-day period and involve on the ground survey, site visits, a flint knapping demonstration, and exposure to cultural resources of various types. NRCS survey techniques are included.

### ***Review:***

The review is of Modules 1-8.

### **Contact:**

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## **NUTRIENT MANAGEMENT PART 2, FACILITATED SESSION / PLAN DEVELOPMENT**

**Trainer:** Jim Sharkoff

**Objective:**

ECS Job Approval Authority, Nutrient Management, Level 3, Plan and Apply with Supervision

This is a “Hands On” training session for conservation planners. Participants receive group instruction regarding NRCS nutrient management planning requirements, Colorado State University fertility recommendations and the use of environmental risk assessment tools. Participants work example problem sets individually with assistance from the instructor, and must submit a Nutrient Management Plan that meets NRCS criteria to complete the course. This session takes about 16 hours to complete.

***Prerequisites:***

National Employee Development Center, Introduction to Water Quality

National Employee Development Center, Nutrient and Pest Management Considerations in Conservation Planning: Nutrient Track 1, Part I, Modules 1-6

**CCA CEUs:** To be determined

**CCP CEUs:** 16

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## **PEST MANAGEMENT PART 2, FACILITATED SESSION / PLAN DEVELOPMENT**

**Trainer:** Jim Sharkoff

**Objective:**

ECS Job Approval Authority, Pest Management, Level 3, Plan and Apply with Supervision

This is a “Hands On” training session for conservation planners. Participants receive group instruction regarding NRCS pest management planning requirements, Colorado State University IPM resources and use of the Windows Pesticide Screening Tool, Version 3. Participants work example problem sets individually with assistance from the instructor, and must submit a Pest Management Plan that meets NRCS criteria to complete the course. This session takes about 8 hours to complete.

***Prerequisites:***

National Employee Development Center, Introduction to Water Quality

National Employee Development Center, Nutrient and Pest Management Considerations in Conservation Planning: Pest Track 2, Part I, Modules 1-6

**CCA CEUs:** To be determined

**CCP CEUs:** 8

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## **NEDC SALINITY MANAGEMENT FOR SOIL AND WATER**

**Trainer:** NEDC Training Cadre

### **Objective:**

The objective of the course is to prepare the participant to understand and independently develop and support salinity management plans in accordance with NRCS policy.

### **Overview:**

This course is designed to provide salinity management training to facilitate development of salinity plans and allow trainees to provide basic technical assistance to producers in the field. The course emphasizes development of complete, integrated plans for salinity management as applied to individual producer operations. The course is based on current conservation policy and the procedures and guidelines in the National Engineering Handbook.

The course is taught over a 5-day period and consists of 30 hours of classroom instruction and 12 hours of field exercises.

### ***Field:***

Field portions of this training occur throughout the session and involve salinity measurement techniques, soil moisture measurement techniques, and hands on experience with various salinity measurement systems employed throughout the state.

### ***Examination:***

Successful completion of a written examination is required for completion of the course. The examination consists of 100 multiple-choice questions. A score of 80% is required for course completion.

**CCA CEUs:** To be determined

**CCP CEUs:** 18

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## **PROPER FUNCTIONING CONDITION TRAINING**

**Trainers:** Colorado Riparian Team members from NRCS, BLM, & FS

**Objective:**

The objective of the course is to prepare participants to independently use the Proper Functioning Condition methodology (PFC) to determine condition and trend of a riparian area.

**Overview:**

This course is designed to provide students with the knowledge they need to be part of a PFC assessment team. The course is taught over a 2-day period with the first day consisting of classroom instruction and the second day in the field.

***Application:***

Following completion of the class, students are able to be part of PFC evaluation teams in their discipline. Team members consist of hydrologists (engineers, forest hydrologists, etc.), plant specialists (range conservationists, biologists), and soils or geology specialists.

**CCA CEUs:** To be determined

**CCP CEUs:** 10

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## **REVISED UNIVERSAL SOIL LOSS EQUATION, VER. 2 (RUSLE 2), AN INTRODUCTION**

**Trainers:** Jim Sharkoff, Ron Schierer, Lorenz Sutherland, Richard Sparks

**Objective:**

Instruct participants in the appropriate use of the Revised Universal Soil Loss Equation, Version 2, for conservation planning.

**Overview:**

This is a “Hands On” training session for conservation planners. Participants receive group instruction regarding sheet and rill erosion science and the use of RUSLE 2, and then work problem sets individually with assistance from the instructor(s). This session takes about 8 hours to complete.

**CCA CEUs:** To be determined

**CCP CEUs:** 8

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## **REVISED UNIVERSAL SOIL LOSS EQUATION, VER. 2 (RUSLE 2), COMPLEX SLOPES**

**Trainer:** Jim Sharkoff

**Objective:**

Instruct participants in the use of the Revised Universal Soil Loss Equation, Version 2, for planning complex slopes.

**Overview:**

This is a “Hands On” training session for conservation planners. Participants receive group instruction regarding the use of RUSLE 2 to plan complex slopes for filter strips and other practices that include changes in management and vegetation along the hill-slope length. Participants work problem sets individually with assistance from the instructor(s). This session takes about 4 hours to complete.

**CCA CEUs:** To be determined

**CCP CEUs:** 4

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## **SOCIAL SCIENCES TRAINING (LOCALLY LED CONSERVATION)**

**Trainer:** Self paced.

**Objective:**

This training is available for NRCS employees through self-paced videos and fact sheets. Locally-led issues supplement the course entitled Conservation Planning (see above).

**Overview:**

The following addresses the Social Sciences Institute (SSI) and training for locally-led conservation (see Table 500-1 that follows). The National Social Sciences Manual Title 420 Part 500 addresses the National Environmental Policy Act (NEPA), Economic and Environmental Principles, Guidelines for Water and Related Land Resources Implementation Studies (P&G), and effectiveness of activities in NRCS. The Social Sciences Team developed and supports a website for training issues through videos and fact sheets on social and economic data sets in order to provide conservation to landowners. Colorado employees are directed to the SSI website and Area and State Offices of NRCS for videos in order to access these valuable training tools. The SSI website provides self-paced education.

**CCA CEUs:** To be determined

**CCP CEUs:** To be determined

**SSI Training Website:** <http://www.ssi.nrcs.usda.gov/training/index.html>

The following is available on the website with a description of each –

“Developing Your Skills to Involve Communities in Implementing Locally Led Conservation” are videos, a self-evaluation web site, CD, and nine training modules. “The Leader in You Series” is a series of videos that are available in the Area and State Offices and they address self-enhancement skills in order to accomplish locally led conservation. “The Adoption and Diffusion of Conservation Technology” (A-D) is a model that addresses stages that people adopt techniques, the role of information, information sources, personal and farm structure, and practice and community characteristics. “Consultation with American Indian Governments” is training by the National Employee Development Center (NEDC) that addresses effective and appropriate government-to-government relations for consultation between the NRCS and Indian nations.

**Fact Sheets and Product Catalog:** <http://www.ssi.nrcs.usda.gov/publications/index.html#ppcs>

A series of information sheets are available in order to assist the conservation partners address social science-related topics. Several topics are addressed. They consist of the following with descriptions of each:

“People, Partnerships, and Communities” (PPC) is a series of fact sheets addressing self-enhancement and ways of working with diverse communities.

“Technical Reports” are selected reports on the topic of social science.

“Marketing Guidebooks” are produced by the National Association of Conservation Districts and the Social Sciences Team for marketing and developing natural resources conservation.

“Product and Program Brochures” are flyers, brochures and handouts for public meetings.

## SOCIAL SCIENCES TRAINING (LOCALLY LED CONSERVATION) CONT.

500.12

**Table 500-1 – Framework for Social Evaluation**

PLANNING STEP	ACTIVITY	PRODUCT	OTHER INFORMATION
1. Specification of problem	<ul style="list-style-type: none"> <li>◦ Collect historic data</li> <li>◦ Collect basic social and socioeconomic data</li> <li>◦ Make field examination</li> <li>◦ Determine scope of analysis</li> <li>◦ Identify key informants and other data sources</li> </ul>	Initial social profile (Becomes part of planning support file)	500.30 500.34
2. Inventory, forecast, and analysis	<ul style="list-style-type: none"> <li>◦ Collect additional social data as identified in the scoping process</li> <li>◦ Interview key informants, including members of minority groups</li> <li>◦ Develop comparative statistics</li> <li>◦ Identify possible social impacts</li> </ul>	Detailed social profile (Significant social variables are included in the formal planning document. Other social variables may be noted in the Investigation and Analysis Report)	500.20-500.22 500.35 500.46 500.47 500.11(b)(1)
3. Formulation of alternatives	<ul style="list-style-type: none"> <li>◦ Work with interdisciplinary team to formulate alternatives and estimate social impacts of each alternative</li> </ul>	Description of social impacts of each alternative (Becomes part of planning support file)	500.47
4. Evaluation and comparison of alternatives	<ul style="list-style-type: none"> <li>◦ Describe differences among alternatives from social perspective</li> <li>◦ Review public comments</li> <li>◦ Identify significant social variables</li> </ul>	Summary and display of social effects of each alternative (Included in formal planning document)	500.50-500.51 501.11(b)(2) 500.12(5)
5. Selection of recommended plan		Display of adverse and beneficial effects of recommended plan	501.11(b)(3)

## **SOCIAL SCIENCES TRAINING (LOCALLY LED CONSERVATION) CONT.**

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## **SPRINKLER IRRIGATION FUNDAMENTALS**

**Trainer:** NRCS Area, State and National Technical Service Center specialists serving as instructors.

**Objective:**

After completion of the class participants will:

Understand the features and benefits of the types of sprinkler irrigation systems commonly used in Colorado;

Be able to identify and incorporate into a conservation plan the most appropriate practices for accomplishing the intended conservation objectives and management functions; and

Understand the appropriate methodology to prepare simple designs such that they are able to check the design information submitted by vendors for compliance with NRCS requirements.

**Overview:**

A review of sprinkler irrigation methods, practice standard criteria, design methodology and documentation requirements with an emphasis on side roll and center pivot irrigation of agricultural crops. This is a two-day class using formal classroom training. Agenda and presentation material are available via CD.

**Prerequisites:** Basic Hydraulics or equivalent experience

**CCA CEUs:** To be determined

**CCP CEUs:** To be determined

**PDHs:** 8

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## **STREAM CLASSIFICATION FOR CONSERVATION PLANNING**

**Trainer:** Colorado NRCS Area and State Office staff serving as instructors

**Objective:**

After completion of the class participants will:

Be aware of several more commonly used stream classification methods; and

Understand how to apply Schum's and Rosgen's methods of stream classification while developing conservation plans that include riparian areas.

**Overview:**

The class provides the participants an awareness of the purpose and application of various stream classification methods and training in the application of the Schum's and Rosgen's methods of stream classification. This is a three-day class using formal classroom training and field exercises.

**Prerequisites:** None

**CCA CEUs:** To be determined

**CCP CEUs:** To be determined

**PDHs:** 16

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## **SURFACE IRRIGATION FUNDAMENTALS**

**Trainer:** Colorado NRCS engineers and technicians serving as instructors.

**Objective:**

After completion of the class participants will:

Understand the features and benefits of common surface irrigation practices used in Colorado;

Be able to identify and incorporate into a conservation plan the most appropriate practices for accomplishing the intended conservation objectives and management functions; and

Understand the appropriate methodology to prepare simple designs for gated pipe and other common surface irrigation practices.

**Overview:**

A review of surface irrigation methods, practice standard criteria, design methodology, and documentation requirements with an emphasis on furrow irrigation of row crops. This is a two-day class using formal classroom training.

**Prerequisites:** Basic Hydraulics or equivalent experience

**CCA CEUs:** To be determined

**CCP CEUs:** To be determined

**PDHs:** 8

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## **STREAM BANK PROTECTION METHODS**

**Trainer:** Colorado NRCS Area and State Office staff serving as instructors.

**Objective:**

After completion of the class participants will:

Understand the features and benefits of typical stream bank protection measures;

Be able to identify and incorporate into a conservation plan the most appropriate stream bank protection measures; and .

Understand the appropriate methodology to prepare simple designs, and be able to check the design information prepared by others for compliance with NRCS requirements.

**Overview:**

This class provides the participant with a review of the stream bank protection methods described in Engineering Field Handbook Chapter 16, Stream bank and Shoreline Protection, with emphasis on biotechnical measures. Content focuses on practice selection; practice standard criteria, design methodology and documentation requirements. This is a four-day class using formal classroom training and field exercises.

***Prerequisites:***

Basic Hydraulics and Stream Classification for Conservation Planning, or equivalent experience

**CCA CEUs:** To be determined

**CCP CEUs:** To be determined

**PDHs:** 24

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## **WETLAND DELINEATION TRAINING**

**Trainers:** Terri Skadeland, Tom Weber

**Objective:**

The objective of the course is to prepare the participant to independently identify and delineate boundaries of wetlands in the field.

**Overview:**

This course covers the indicators used to determine if wetland criteria are met in the three areas used to make a wetland determination: hydric soils, hydrophytic vegetation, and wetland hydrology. Additional wetland related topics such as Corps of Engineers jurisdiction under the Clean Water Act, wetland authorities based on agreements among Federal agencies, and National Food Security Act Manual, are covered briefly.

The course runs 4 full days. Mornings are spent in the classroom and afternoons in the field. Students are given a pre and a post-test. A score of 80 or higher is required on the post-test in order to pass the training.

**CCA CEUs:** To be determined

**CCP CEUs:** 18

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## WINDOWS PESTICIDE SCREENING TOOL

**Trainers:** Jim Sharkoff, Ron Schierer, Lorenz Sutherland, Richard Sparks

**Objective:**

Instruct participants in the appropriate use of the Windows Pesticide Screening Tool for conservation planning.

**Overview:**

This is a “Hands On” training session for conservation planners. Participants receive group instruction regarding pest management planning and use of Win-PST 3.1, and then work problem sets individually with assistance from the instructor(s). This session takes about 4 hours to complete.

**CCA CEUs:** To be determined

**CCP CEUs:** 4

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